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(54) **Coated monolith substrate and catalysts comprising it as support**

(57) The present invention relates to monolith catalysts comprising a catalytic metal deposited onto a coated monolith substrate comprising a wash coat applied to a monolith substrate wherein the monolith catalysts have a surface area ranging from 0.1 to 25 m²/gram as measured by adsorption of N₂ or Kr using the BET method. The invention also relates to the coated monolith

substrates used in such monolith catalysts. The monolith catalysts of the present invention are particularly suited toward use in hydrogenation processes which employ an immiscible mixture of an organic reactant in water.



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EUROPEAN SEARCH REPORT

Application Number
EP 02 00 8232

DOCUMENTS CONSIDERED TO BE RELEVANT			
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X	EP 0 449 423 A (NIPPON CATALYTIC CHEM IND) 2 October 1991 (1991-10-02) * page 3, line 44 - page 4, line 40 * * examples 3,5; table 1 * * claims 1,3-6,9 * ---	1,2,5-8, 11-14	B01J35/04 B01J35/10 C07C209/36
X	US 4 253 992 A (SOEJIMA SHIGEO ET AL) 3 March 1981 (1981-03-03) * page 3, line 51 - page 4, line 49 * ---	1,2,5,7, 8,11,13, 14	
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A	US 5 856 263 A (JARRELL MICHAEL SCOTT ET AL) 5 January 1999 (1999-01-05) * column 2, line 64 - column 3, line 3 * * column 3, line 65 - column 4, line 33 * * column 4, line 61 - column 5, line 1 * * claims * ---	1,2,6-8, 12-14	TECHNICAL FIELDS SEARCHED (Int.Cl.7) B01J C07C
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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 2 June 2003	Examiner Gosselin, D
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons 8 : member of the same patent family, corresponding document</p>			

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Application Number
EP 02 00 8232

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The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 2 June 2003	Examiner Gosselin, D
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		Y : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



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**LACK OF UNITY OF INVENTION
SHEET B**

Application Number
EP 02 00 8232

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1,2,5-8,11-14

A monolith substrate comprising a wash coat formed from an inorganic material, said wash coat optionally comprising a catalytic material.

2. Claims: 3,4,9,10,15

A monolith substrate comprising a wash coat formed from an organic material, said wash coat optionally comprising a catalytic material, and a process for producing said coated monolith substrate.

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 00 8232

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02-06-2003

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